



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RBW6405G02131-3G-5

Job Sheet 190639



DAG
21
9-09

Part No: RBW6405G02131-3G-5

Job Qty: 4 pcs

Part Name: Quarter Bell



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 2/12/19

Job Tracking No: SIOP

Due Date: 3/12/19

Created By: Dara Macdonald

Type: Stock

Description:

Note: DWG RBW6405G02131-3G REV D SHEET 4 IPP Rev.A 17.08.30 New issue DP Verify DD/IPP Rev D 17.11.15 Rev D DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
110	SL-154 - 1	4 pcs	3/12/19	3/12/19	0.00	1.00	SL-154 - 1	SL
120	QC 2	4 pcs	3/12/19	3/12/19	0.00	0.00	QC 2 - 1	
							QC 2 - 12	
							QC 2 - 14	
							QC 2 - 17	
							QC 2 - 19	
							QC 2 - 2	
							QC 2 - 20	
							QC 2 - 22	
							QC 2 - 23	
							QC 2 - 25	SL
							QC 2 - 32	
							QC 2 - 33	
							QC 2 - 35	
							QC 2 - 39	
							QC 2 - 4	
							QC 2 - 40	
							QC 2 - 44	
							QC 2 - 45	
							QC 2 - 48	
							QC 2 - 49	
							QC 2 - 50	
							QC 2 - 51	
							QC 2 - 52	
							QC 2 - 54	
							QC 2 - 56	
							QC 2 - 57	
							QC 2 - 62	
							QC 2 - 63	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 813 632-6200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S159210



Part: RBW6405G02131-3G-5

Job No: 190639

Serial No/Batch: S159210

Revision: D

Inspector:

Exp Date:

Instructions:

Date: 03/05/19

				QC 2 - 8	
				QC 2 - 66	
				QC 2 - 64	
130	QC 8	4 pcs	3/12/19	0.00 0.00	QC 8 - 12
					QC 8 - 14
					QC 8 - 17
					QC 8 - 20
					QC 8 - 25
					QC 8 - 3
					QC 8 - 32
					QC 8 - 33
					QC 8 - 35
					QC 8 - 39
					QC 8 - 4
					QC 8 - 44
					QC 8 - 45
					QC 8 - 49
					QC 8 - 58
					QC 8 - 8
					QC 8 - 9
					QC 8 - 68
					QC 8 - 67
					QC 8 - 1 (A)
					QC 8 - 47
140	Outsource - 13 - Zinc Plating	4 pcs	3/12/19		GRO002-VC 10
150	Packaging 2-1 - Receive - B4B	4 pcs	3/12/19	0.00 0.00	Packaging 2 - 1 - B4B
					Packaging 2 - 2 - B4B
					Packaging 2 - 3 - B4B
					Packaging 2 - 5 - B4B
					Packaging 2 - 4 - B4B
					Packaging 2 - 6 - B4B
					Packaging 2 - 7 - B4B
					Packaging 2 - 8 - B4B
					Packaging 2 - 9 - B4B
					Packaging 2 - 10 - B4B
					Packaging 2 - 11 - B4B
					Packaging 2 - 12 - B4B
					Packaging 2 - 13 - B4B
					Packaging 2 - 14 - B4B
					Packaging 2 - 15 - B4B
					Packaging 2 - 16 - B4B
					Packaging 2 - 17 - B4B
					Packaging 2 - 18 - B4B
					Packaging 2 - 19 - B4B
					Packaging 2 - 20 - B4B
					Packaging 2 - 21 - B4B
					Packaging 2 - 22 - B4B
					Packaging 2 - 23 - B4B
					Packaging 2 - 24 - B4B
					Packaging 2 - 25 - B4B
					Packaging 2 - 26 - B4B
					Packaging 2 - 27 - B4B
					Packaging 2 - 28 - B4B
					Packaging 2 - 29 - B4B
					Packaging 2 - 30 - B4B
					Packaging 2 - 31 - B4B
					Packaging 2 - 32 - B4B
					Packaging 2 - 33 - B4B
					Packaging 2 - 34 - B4B

M.E 19-03-06

03/06/2019. PL

OP MAR 13 2019

160 QC 6	4 pcs	3/12/19	0.00 0.00	Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
				QC 6 - 42	
				QC 6 - 9	DAS
				QC 6 - 68	MAR 13 2019 68
210 Packaging 3-1 - Stock - B4B	4 pcs	3/12/19	0.00 0.00	QC 6 - 61	9-89
				Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	DAS
				Packaging 3 - 7 - B4B	28
				Packaging 3 - 8 - B4B	9-89
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	DAS
220 QC 21 - SA	4 pcs	3/12/19	0.00 0.00	QC 21 - SA - 21	MAR 14 2019
				QC 21 - SA - 70	21
				QC 21 - SA - 53	9-89

Part Op 110 - MORI SL-154 LATHE - 1-Machine as per DWG. FB622 FOLIO REV: _____ DWG REV: _____ 2-
 Descriptions: Deburr

120 - QC2- Inspect parts off machine FAI/FAIB

130 - QC8- Inspect parts - second check

140 - -Issue P/O to Groupe Altech: P/O _____ -Zinc plate, ASTM B633 TYPE 1 SC2 - Certificate of Conformity is required

150 - Receive & Inspect for Damage & Mat'l Certs

160 - QC6- All purchased or subcontracted products

210 - Identify as per dwg & Stock Location: _____

220 - QC21- Final Inspection - Work Order Release

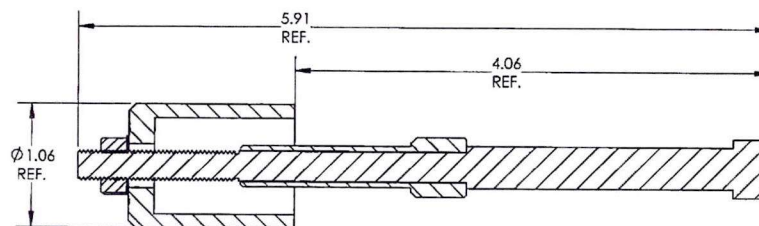
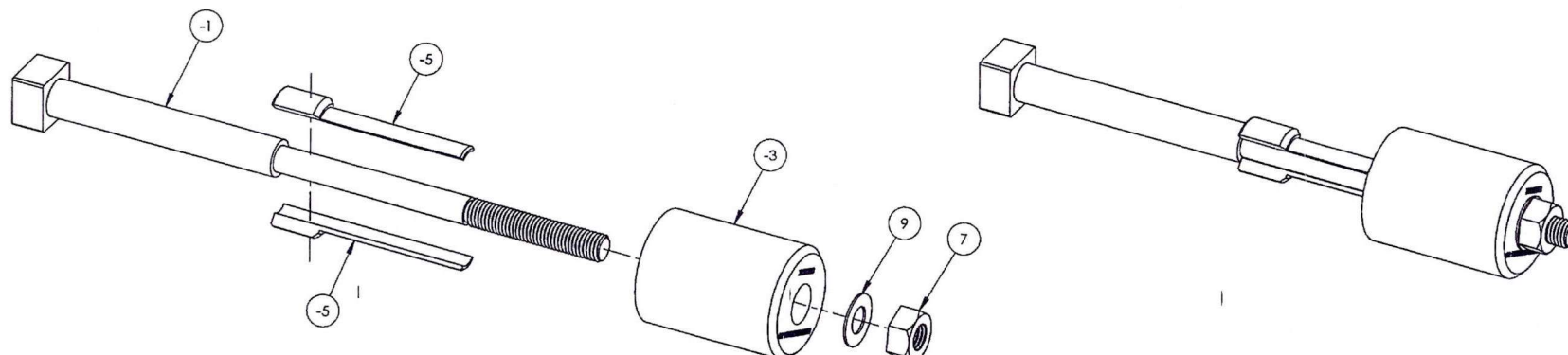
Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-4140QT-R0.625	AISI 4140 Quenched & Tempered Steel Round Bar 0.625" Dia.	.6920 ft (.173 ea)	110-SL-154 - 1	5128382-18

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
110-SL-154 - 1	MT-4140QT-R0.625	1	0	0
MAT009-M				
Part Specifications				
Specifications could not be found.				

Plex 2/12/19 1:17 PM Dart.Macdonald.Dara

ITEM #	QTY	PART #	TITLE	PG	REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
-1	1	RBW6405G02131-3G-1	BOLT	2	1	CH'D TITLEBLOCK WAS RED BARN IS DART. -1 CH'D DIM WAS 4X.03 X 45° IS 4X R.34. -5 ADDED DIM (.338), CH'D DIM WAS 1.430 IS 1.45.	14-0205	10/31/2014	DJN	JAG
-3	1	RBW6405G02131-3G-3	BELL	3	2	-1 AND -5 CH'D MATERIAL CALL OUT WAS 4140 Q&T IS 4140 Q&T / 4142 Q&T. -5 ADDED PART MARK FOR PAIRS NOTE.	15-0294	9/10/2015	RJC	JAG
-5	2	RBW6405G02131-3G-5	QUARTER BELL	4	3	-1 CH'D MAT'L WAS 4140 Q&T/4142 Q&T IS 4140/4142. ADDED HEAT TREAT RC 28-34. CH'D FINISH WAS CAD PLATE YELLOW QQ-P-416 TYPE II CLASS II IS ZINC PLATE ASTM B633 TYPE I SC2. -3 DELETED DIMS (.220), (2X .118). CH'D DIM WAS 1.12 IS 1.20. -5 CH'D MAT'L WAS 4140 Q&T/4142 Q&T IS 4140/4142. ADDED HEAT TREAT RC 28-34. CH'D FINISH WAS CAD PLATE YELLOW QQ-P-416 TYPE II CLASS II IS ZINC PLATE ASTM B633 TYPE I SC2. DELETED DIM 42°.	17-0161	6/23/2017	DPD	JAG
7	1	McMaster#94191A150	HEX NUT 1/4"-28 UNF GRADE 8	-	D	-1 & -5 MATERIAL 4140-4142 CHANGED FOR 4140-4142 Q&T Rc ADDED, TEMPLATE UPDATED	17-717	17.10.19	VM	WM
9	1	McMaster#95229A420	FLAT WASHER 1/4"	-						



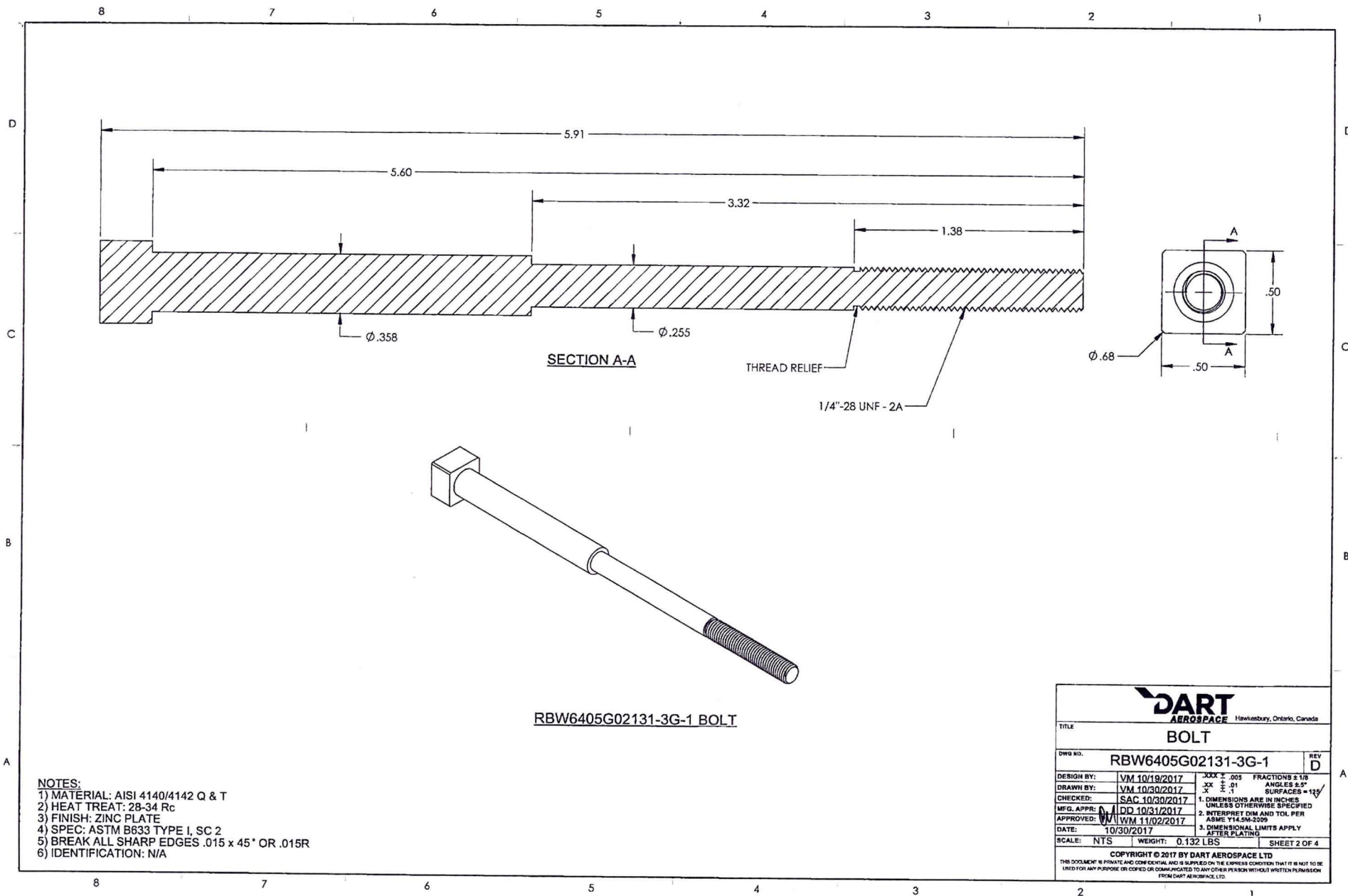
SECTION A-A

NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) SPEC: N/A
- 5) BREAK ALL SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) REF AGUSTA T/N: 3G6405G02131

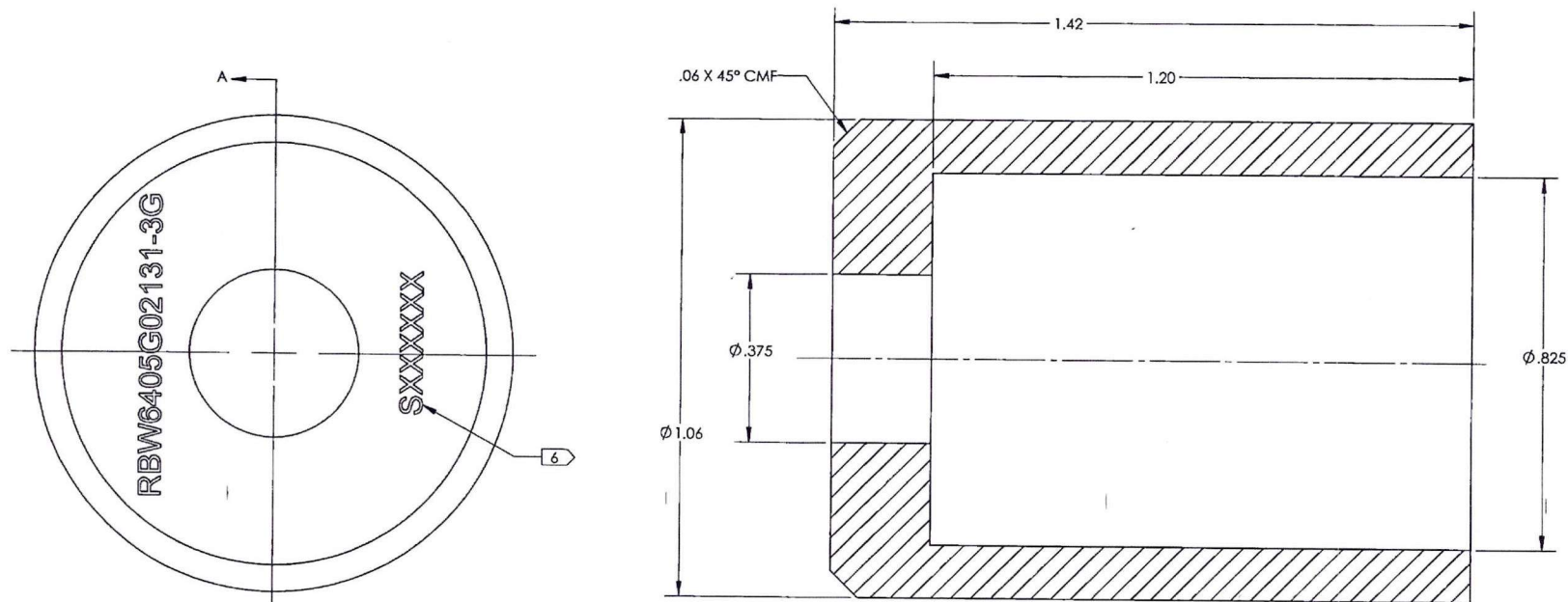
RBW6405G02131-3G TAIL ROTOR BLADE DAMPER ATTACHMENT BUSHING REMOVAL

DART AEROSPACE Hawkesbury, Ontario, Canada			
TITLE TAIL ROTOR BLADE DAMPER ATTACHMENT BUSHING REMOVAL			
DWG NO. RBW6405G02131-3G		REV D	
DESIGN BY:	VM 10/19/2017	XXX ± .005 FRACTIONS ± 1/8	
DRAWN BY:	VM 10/30/2017	.XX ± .01 ANGLES ± 5°	
CHECKED:	SAC 10/30/2017	.X ± .1 SURFACES = 125	
MFG. APPR:	DD 10/31/2017	1. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	
APPROVED:	WM 11/02/2017	2. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DATE:	10/30/2017	3. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE:	NTS	WEIGHT:	N/A
COPYRIGHT © 2017 BY DART AEROSPACE LTD		SHEET 1 OF 4	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

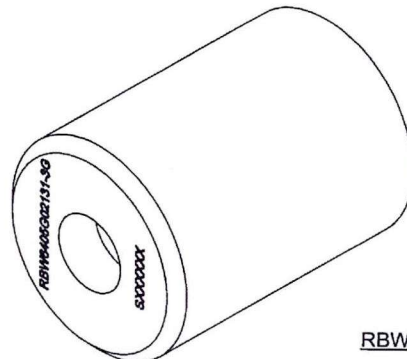


8 7 6 5 4 3 2 1

D
C
B
A



SECTION A-A



RBW6405G02131-3G-3 BELL

- NOTES:
- 1) MATERIAL: 6061-T6
 - 2) HEAT TREAT: N/A
 - 3) FINISH: CLEAR ANODIZE
 - 4) SPEC: MIL-A-8625, TYPE II, CLASS 1; WATER SEALANT
 - 5) BREAK ALL SHARP EDGES .015 x 45° OR .015R
 - 6) IDENTIFICATION: MACHINE ENGRAVE PER CAD FILE LATEST REV T/N & S/N, 0.010" DEPTH

DART AEROSPACE Howestbury, Ontario, Canada	
TITLE BELL	
DWG NO. RBW6405G02131-3G-3	REV D
DESIGN BY: VM 10/19/2017	XXX ± .005 FRACTIONS & 1/8
DRAWN BY: VM 10/30/2017	.XX ± .01 ANGLES ± 5°
CHECKED: SAC 10/30/2017	.X ± .1 SURFACES ± 12°
MFG. APPR: WDD 10/31/2017	1. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED
APPROVED: WWM 11/02/2017	2. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
DATE: 10/30/2017	3. DIMENSIONAL LIMITS APPLY AFTER PLATING
SCALE: NTS	WEIGHT: 0.057 LBS
SHEET 3 OF 4	
COPYRIGHT © 2017 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor		
			QC / QA Coordinator		
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO042818



Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO042818
PO Date: 3/6/19
Due Date: 3/13/19
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 60
Freight Terms:
Special Comments:

Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	188396	RBW6305G11151-3G	Pin, Main Rotor Servoactuator Fitting Installation -Issue P/O to GROUPE ALTECH: P/O -Zinc plate, ASTM B633 TYPE 2 SC2 -Color yellow -Material type; 1018 -Certificate of Conformity is required	Firmed - X12		3/13/19	12 pcs	0 pcs	12 pcs	\$7.50/pcs	\$90.00
MAR 13 2019 DP											
Line Item Note **Need parts back for March 13,2019**											
2	190639	RBW6405G02131-3G-5	Quarter Bell -Issue P/O to Groupe Altech: P/O -Zinc plate, ASTM B633 TYPE 1 SC2 - Certificate of Conformity is required	Firmed - X12		3/13/19	12 pcs	0 pcs	12 pcs	\$11.25/pcs	\$135.00
MAR 13 2019 DP											
Line Item Note **Need parts back for March 13,2019**											



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO042818



Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	190638	RBW6405G02131-3G-1	Bolt -Issue P/O to Groupe Altech: P/O -Zinc plate, ASTM B633 TYPE 1 SC2 - Certificate of Conformity is required	Firmed	-	3/13/19	6 pcs	0 pcs	6 pcs	\$3.00/pcs	\$18.00

X6

MAR 13 2019

DP

Line Item Note **Need parts back for March 13,2019**

Grand Total: \$243.00

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

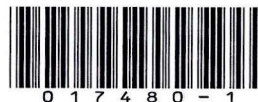
Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

[Handwritten signature]

Plex 3/8/19 10:24 AM dart.Lussier.Patrick



Certificat de Conformité / Certificate of Compliance



2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

017480 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
11-Mar-2019		Shankar Anand		PO042818				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	RBW6305G11151-3G Rev.	RBW6305G11151-3G 01 -ZINC-YELLOW [ZINC YELLOW] OLD YELLOW CHROMATE, 96 hours ASTM B633 TYPE 2 SC2	ZINC CH	12	12	0	0	0
2	RBW6405G02131-3G-5 Rev.	QUARTER BELL 01 -ZINC-CLEAR TRI [ZINC CLEAR TRIVALENT] SPÉC: ASTM B633 TYPE 1 SC2 ***	ZINC CH	12	12	0	0	0
3	RBW6405G02131-3G-1 Rev.	BOLT 01 -ZINC-CLEAR TRI [ZINC CLEAR TRIVALENT] SPÉC: ASTM B633 TYPE 1 SC2 ***	ZINC CH	6	6	0	0	0

Notes Additionnelles / Additional Notes

3 Box

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.